

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Cancelled)
2. (Currently Amended) A sample tube assembly comprising:
  - [[i]] a tube portion having a bottom;
  - [[ii]] an end cap ~~mountable~~ mounted to the bottom of the tube portion ~~to provide and providing~~ a ~~fluid-tight-seal~~ substantially fluid-tight seal therewith;
  - [[iii]] a label chamber defined by a substantially fluid-tight space between the bottom of the tube portion and the end cap; and
  - [[iv]] a label having an optically readable code ~~located~~ and encapsulated inside the label chamber, ~~a region of wherein~~ the end cap includes a region over the label ~~being that is~~ sufficiently transparent for the optically readable code to be read through the end cap region from below the bottom of the tube portion.
3. (Currently Amended) [A] The sample tube assembly ~~as claimed in Claim of claim~~ 2 wherein ~~the tube portion comprises a shoulder formed around the bottom of the tube portion, and the end cap comprises a base and an upstanding sidewall extending substantially around the perimeter of~~

the end cap, the sidewall ~~having an outermost end edge adapted to cooperate with the shoulder~~  
extending from the base to the bottom of the tube portion.

4. (Currently Amended) [A]] ~~The sample tube assembly as claimed in Claim of claim 3~~ wherein  
~~prior to assembly~~, the sidewall of the end cap incorporates a first ridge extending substantially  
around the circumference of the sidewall.

5. (Currently Amended) A [A]] ~~The sample tube assembly as claimed in Claim of claim 4~~  
wherein ~~prior to assembly the shoulder on the bottom of the tube portion incorporates the tube~~  
portion comprises a shoulder formed around the bottom of the tube portion, said shoulder  
including a second ridge extending substantially around the circumference of the tube portion.

6. (Currently Amended) [A]] ~~The sample tube assembly as claimed in Claim of claim 5~~ wherein  
the first ridge on the end cap and the second ridge on the tube portion contact each other when  
the end cap is placed onto the bottom of the tube portion.

7. (Currently Amended) [A]] ~~The sample tube assembly as claimed in Claim of claim 6~~ wherein  
~~during the assembly manufacturing process~~, the contacting first and second ridges are heated and  
compressed together to form a fluid-tight seal between the tube portion and the end cap.

8. (Currently Amended) [A]] The sample tube assembly ~~as claimed in Claim of claim~~ 2 wherein the end cap includes a ridge and the tube portion includes a groove adapted to co-operatively engage the ridge.

9. (Currently Amended) [A]] The sample tube assembly ~~as claimed in Claim of claim~~ 2 wherein the end cap includes a groove and the tube portion includes a ridge adapted to co-operatively engage with the groove.

10. (Currently Amended) [A]] The sample tube assembly ~~as claimed in Claim of claim~~ 8 wherein the ridge of the end cap snap fits with the groove of the tube portion.

11. (Currently Amended) [[A]] The sample tube assembly ~~as claimed in Claim of claim~~ 9 wherein the groove of the end cap snap fits with the ridge of the tube portion.

12. (Currently Amended) [[A]] The sample tube assembly ~~as claimed in Claim of claim~~ 2 wherein the label is a laser etched label.

13. (Currently Amended) [[A]] The sample tube assembly ~~as claimed in Claim of claim~~ 2 wherein the label is formed from paper.

14. (Currently Amended) [[A]] The sample tube assembly ~~as claimed in Claim of claim~~ 2 wherein the label is formed from a plastics material.

15. (Currently Amended) ~~[[A]] The sample tube assembly as claimed in Claim of claim 2~~  
wherein the optically readable code includes a bar code.

16. (Currently Amended) ~~[[A]] The sample tube assembly as claimed in Claim of claim 2~~  
wherein ~~[[the]]~~ the optically readable code includes a binary code.

17. (Currently Amended) ~~[[A]] The sample tube assembly as claimed in Claim of claim 2~~  
wherein ~~[[the]]~~ the optically readable code includes an alphanumeric code and at least one of a  
bar code and a binary code.

18. (Currently Amended) ~~[[A]] The sample tube assembly as claimed in Claim of claim 2~~  
wherein the end cap is fused to the tube portion using ultrasonic welding.

19. (Currently Amended) ~~[[A]] The sample tube assembly according to Claim of claim 2~~  
wherein the optically readable code includes at least one of optically readable shapes and  
optically readable characters.

20-28. (Cancelled)

29. (Currently Amended) ~~[[A]] The sample tube assembly according to Claim 7 of claim 2~~  
wherein the optically readable code is printed on the label is a printed label before the label is  
encapsulated inside the label chamber.

30. (Currently Amended) [[A]] The sample tube assembly ~~according to Claim of claim~~ 8 wherein the groove is an endless groove extending substantially about the circumference of the tube portion.
31. (Currently Amended) [[A]] The sample tube assembly ~~according to Claim of claim~~ 8 wherein the groove is an endless groove extending substantially about the circumference of the end cap.
32. (Currently Amended) [[A]] The sample tube assembly ~~according to Claim of claim~~ 2 wherein the end cap has a snap fit with the bottom of the tube portion.
33. (Currently Amended) [[A]] The sample tube assembly ~~according to Claim of claim~~ 2 wherein the bottom of the tube portion includes a reduced diameter end region that snap fits with the end cap.
34. (Currently Amended) [[A]] The sample tube assembly ~~according to Claim of claim~~ 2 wherein the label chamber overlies the bottom of the tube portion.
35. (New) The sample tube assembly of claim 2 wherein the end cap is hermetically sealed with the bottom of the tube portion.

36. (New) The sample tube assembly of claim 2 wherein the tube portion is made from polypropylene.

37. (New) An apparatus for holding a sample, comprising:

a label including an optically readable code; and

a body including a cavity, an opening through which the sample can be inserted into said cavity, and a substantially liquid-tight chamber encapsulating said label, at least a region of said body being sufficiently transparent to facilitate optically reading said optically readable code through said transparent region.

38. (New) The apparatus of claim 37 wherein said body includes a top end and a bottom end opposite said top end, said opening in said body is positioned at said top end, and said chamber is positioned adjacent to said bottom end.

39. (New) The apparatus of claim 38 wherein said chamber includes a base located proximate to said bottom end of said body and a sidewall extending substantially around a periphery of said chamber.

40. (New) The apparatus of claim 39 wherein said transparent region of said body comprises a portion of said base.

41. (New) The apparatus of claim 38 wherein said label is oriented within said chamber such that said optically readable code is readable from a position below said bottom end.
42. (New) The sample tube assembly of claim 37 wherein said chamber is hermetically sealed.
43. (New) The sample tube assembly of claim 37 wherein said body is made from polypropylene.
44. (New) An apparatus for holding a sample, comprising:
- a label having an optically readable code;
  - a tube portion including a top end, a bottom end, a cavity, and an opening defined proximate said top end for inserting the sample into said cavity; and
  - an end cap having a substantially liquid-tight seal with said bottom end of said tube portion to define a chamber between said end cap and said tube portion, said label encapsulated inside said chamber and oriented such that said optically readable code faces away from said first cavity, and said end cap having a region sufficiently transparent to read said optically readable identifier from below said tube portion.
45. (New) The apparatus of claim 44 wherein said end cap includes a base and a sidewall encircling a perimeter of said base, said sidewall extending from said base to said bottom end of said tube portion to thereby surround said liquid-tight chamber.

46. (New) The apparatus of claim 45 wherein said sidewall is fused with said base.

47. (New) The apparatus of claim 44 wherein said end cap and said tube portion are configured to provide a snap fit between said end cap and said tube portion.

48. (New) The apparatus of claim 44 wherein said end cap and said tube portion are configured to provide an interference fit between said end cap and said tube portion.